What is claimed is:

1. A fan motor speed control circuit, comprising:

a digital/analog converting unit for receiving a pulse width modulation (PWM) signal, and transforming the PWM signal to a voltage signal; and

a driving unit connected with the digital/analog converting unit in series for receiving the voltage signal, and providing a first predetermined voltage and a second predetermined voltage among which the first predetermined voltage is higher than the second predetermined voltage;

wherein, the fan motor has a low constant rotation speed when the level of the voltage signal is higher than the first predetermined voltage level; the fan motor has a variable rotation speed when the level of the voltage signal is lower than the first predetermined voltage level but higher than the second predetermined voltage level; the fan motor has a high constant rotation speed when the level of the voltage signal is lower than the second predetermined voltage level.

2. The fan motor speed control circuit as claimed in claim 1, wherein the low constant rotation speed is set to be zero.

3. The fan motor speed control circuit as claimed in claim 1, wherein the digital/analog converting unit comprises a transistor, a diode, a capacitor and a plurality of resistors.

4. The fan motor speed control circuit as claimed in claim 1, wherein the driving circuit comprises a Hall element and an oscillating circuit.

5. The fan motor speed control circuit as claimed in claim 4, wherein the first predetermined voltage and the second predetermined voltage are provided by the oscillating circuit.

6. The fan motor speed control circuit as claimed in claim 4, wherein the driving circuit further comprises a voltage-dividing circuit, and the first predetermined voltage level is determined by the voltage-dividing circuit, and the low constant rotation speed is not zero.

7. The fan motor speed control circuit as claimed in claim 1, wherein the driving unit is integrated into an IC chip.

8. A fan motor speed control circuit driven by a PWM signal, the fan motor speed control circuit comprising:

a digital/analog converting circuit for receiving the PWM signal, and converting the PWM signal into a voltage signal; and

a drive IC having a control element, an oscillating element and a plurality number of terminals; the oscillating element outputs a digital signal; the terminals are coupled with the digital/analog converting circuit, a Hall element, the stator coil of a fan motor, and an input voltage source respectively;

wherein, the control element receives the voltage signal; the fan motor has a zero rotation speed when the voltage signal level is higher than the high voltage level of the digital signal; the fan motor has a variable rotation speed when the voltage signal level is lower than the high voltage level of the digital signal but higher than the low voltage level of the digital

signal; the fan motor has a high constant rotation speed when the voltage signal level is lower than the low voltage level of the digital signal.

9. The fan motor speed control circuit as claimed in claim 8, wherein the digital/analog converting circuit comprises a transistor, a diode, a capacitor and a plurality of resistors.

10. A fan motor speed control circuit driven by a PWM signal, comprising:

a digital/analog converting circuit for receiving the PWM signal and converting the PWM signal into a voltage signal;

a voltage-dividing circuit; and

a drive IC having a control element, an oscillating element and a plurality number of terminals; the oscillating element outputs a digital signal; the terminals are coupled with the digital/analog converting circuit, the voltage-dividing circuit, a Hall element, the stator coil of a fan motor, and an input voltage source, respectively;

wherein, the control element receives the voltage signal and take a partial voltage level of the voltage-dividing circuit; the fan motor has a low constant rotation speed when the voltage signal level is higher than the partial voltage level of the voltage-dividing circuit; the fan motor has a variable rotation speed when the voltage signal level is lower than the partial voltage level of the voltage-dividing circuit but higher than the low voltage level of the digital signal; the fan motor has a high constant rotation speed when the voltage signal level is lower than the low voltage level of the digital signal.

11. The fan motor speed control circuit as claimed in claim 10, wherein the

digital/analog converting circuit comprises a transistor, a diode, a capacitor and a plurality of resistors.

12. The fan motor speed control circuit as claimed in claim 10, wherein the voltage-dividing circuit comprises two resistors.